

DOCUMENT D2 (state of the art):

Soft absorbent products based on fibres and polyacrylics:

[001] Absorbent products for absorbing bodily fluids such as baby diapers are widely used. These products comprise an absorbent core arranged between a water-impermeable first layer and a non-woven second layer. Consumer feedback has indicated that these products often feel rough against the skin. We have surprisingly found that this is related to the composition of the absorbent core.

[002] In order to solve this problem, an absorbent structure is proposed with a core comprising polyacrylic superabsorbent polymers and cellulosic fibres. The preferred cellulosic fibres are cotton fibres. The preferred polyacrylic superabsorbent polymer is Superwet A1000.

[003] The absorbent products are made by conveying the fibres in a stream of hot air to a rotating vacuum drum. Superabsorbent polymer granules are fed into the stream of fibres thereby mixing them with the fibres and forming the absorbent core. The absorbent core is then laminated with the first layer and second layer to form the absorbent product.

[004] Two absorbent products were made: one (product A) with a core consisting of 15% Superwet A1000, and the rest being cotton fibres; the second one (product B) had a core consisting of 30% Superwet A1000, and the rest being cotton fibres. These products were given to a testing panel and their softness was rated from 1-100, with a higher value being better. Product A had a perceived softness value of 50 and product B had a perceived softness of 31. These products are thus much softer than products commercially available today which all have a perceived softness of between 10 and 20.

[005] The tests were repeated with other cellulosic fibres and identical results were obtained.

Claim

1. An absorbent product comprising an absorbent core comprising cellulosic fibres and polyacrylic superabsorbent polymer granules.